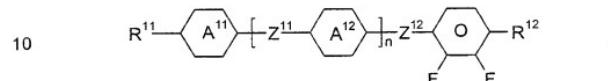


**Patent Claims**

1. A nematic liquid-crystal medium, which comprises

- 5        a) a dielectrically negative, liquid-crystalline component A which  
          comprises one or more dielectrically negative compounds of the  
          formula I



in which

- 15       and  are, independently of one another,
- , ,  or 

- 20      R<sup>11</sup>        is alkyl having from 1 to 7 carbon atoms, alkoxy  
          having from 1 to 7 carbon atoms or alkenyloxy having  
          from 2 to 7 carbon atoms,

- 25      R<sup>12</sup>        is alkyl or alkoxy having from 1 to 7 carbon atoms or  
          alkenyl, alkenyloxy or alkoxyalkyl having from 2 to 7  
          carbon atoms,

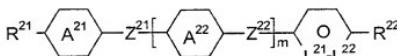
- 30      one of  
          Z<sup>11</sup> and Z<sup>12</sup>    is OCF<sub>2</sub> or CF<sub>2</sub>O, and the other is a single bond, and

n        is 0 or 1, and

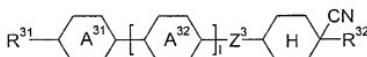
- 35      b)        a dielectrically negative, liquid-crystalline component,  
          B and

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- 5                   c)               a dielectrically neutral, liquid-crystalline component C,  
                          and  
                  d)               a dielectrically positive, liquid-crystalline component  
                          D.
- 10                 2. A liquid-crystal medium of claim 1, wherein component B comprises  
                      one or more compounds selected from the group consisting of the  
                      compounds of the formulae II and III



II



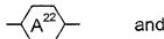
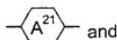
III

in which

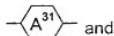
20                 $\text{R}^{21}$                is alkyl or alkoxy having from 1 to 7 carbon atoms or  
                      alkoxyalkyl, alkenyl or alkenyloxy having from 2 to 7  
                      carbon atoms,

25                 $\text{R}^{22}$                is alkyl or alkoxy having from 1 to 7 carbon atoms or  
                      alkoxyalkyl, alkenyl or alkenyloxy having from 2 to 7  
                      carbon atoms,

30                 $\text{Z}^{21}$  and  $\text{Z}^{22}$    are each, independently of one another,  $-\text{CH}_2-\text{CH}_2-$ ,  
                       $-\text{CH}=\text{CH}-$ ,  $-\text{C}\equiv\text{C}-$ ,  $-\text{COO}-$  or a single bond,



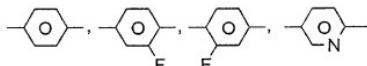
35



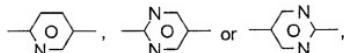
and  
are each, independently of one another,



5



10



L<sup>21</sup> and L<sup>22</sup> are both C-F or one of the two is N and the other is C-F,

15

m is 0 or 1,

Z<sup>3</sup> is -CH<sub>2</sub>-CH<sub>2</sub>-, -CH=CH-, -C≡C-, -COO- or a single bond,

20

R<sup>31</sup> and R<sup>32</sup> are each, independently of one another, alkyl or alkoxy having from 1 to 7 carbon atoms or alkoxy-alkyl, alkenyl or alkenyloxy having from 2 to 7 carbon atoms, and

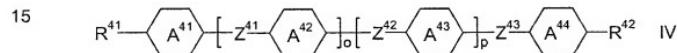
25

I is 1 or 2.

3. A liquid-crystal medium of Claim 2, which comprises one or more compounds of the formula II.
4. A liquid-crystal medium of Claim 2 which comprises one or more compounds of the formula III.
5. A liquid-crystal medium of Claims 1 which comprises a component C.
6. A liquid-crystal medium of Claim 1, which comprises a component D.

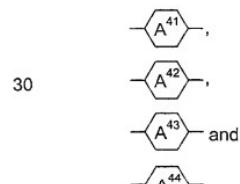
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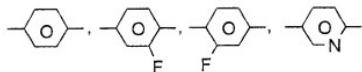
7. An electro-optical display comprising a liquid-crystal medium according of Claim 1.
- 5       8. A display according to Claim 7, which is an active matrix display.
9. A display according to Claim 7 which is an ECB or IPS display.
- 10     10. The liquid-crystal medium of claim 1, wherein R<sup>11</sup> is alkyl, alkoxy, or alkenyloxy of Z to 4 carbon atoms and one of Z<sup>11</sup> or Z<sup>12</sup> is OCF<sub>2</sub>.
11. The liquid-crystal medium of claim 5, wherein component C comprises at least one compound of the formula IV.



20     in which

- R<sup>41</sup> and R<sup>42</sup> are each, independently of one another, as defined above for R<sup>21</sup> in the case of the formula II,
- 25     Z<sup>41</sup>, Z<sup>42</sup> and Z<sup>43</sup> are each, independently of one another, -CH<sub>2</sub>CH<sub>2</sub>-, -CH=CH-, -COO- or a single bond,

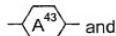




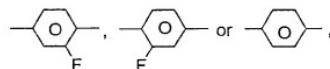
5                   ——, —— or —— and

o and p, independently of one another, are 0 or 1,

10                 12. The liquid-crystal medium of claim 6, wherein component D comprises at least one compound of the formula V.



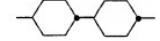
are each, independently of one another, ——

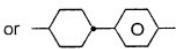


25                 and very particularly preferably at least two of these rings



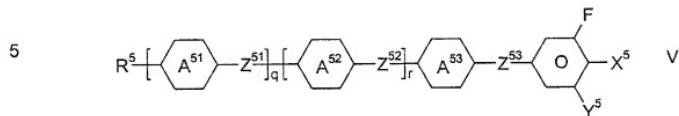
and/or ——,

30                 where two adjacent rings are very particularly preferably linked directly to one another, preferably ——



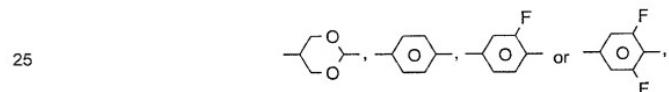
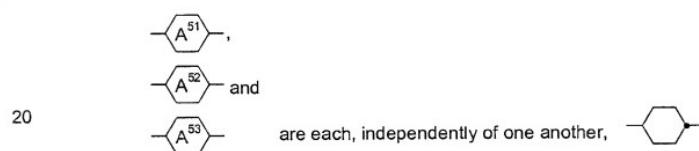
35                 and optionally

d) one or more dielectric positive compound(s) of the formula V



10       $R^5$       is alkyl or alkoxy having from 1 to 7 carbon atoms, or alkoxyalkyl, alkenyl or alkenyloxy having from 2 to 7 carbon atoms,

15       $Z^{51}$ ,  $Z^{52}$  and  $Z^{53}$  are each, independently of one another,  $-\text{CH}_2\text{CH}_2-$ ,  $-\text{CH}=\text{CH}-$ ,  $-\text{C}\equiv\text{C}-$ ,  $-\text{COO}-$  or a single bond,



30       $X^5$       is F,  $\text{OCF}_2\text{H}$  or  $\text{OCF}_3$ , and

35       $Y^5$       is H or F, preferably F in the case where  $X = \text{F}$  or  $\text{OCF}_2\text{H}$ , and

q and r      are each, independently of one another, 0 or 1.

35      In a further preferred embodiment, the medium comprises one or more dielectrically negative compounds of the formula VI.

13. The liquid-crystal medium of claim 1, which comprises 5% to  
85% by weight of component A, 5% to 85% by weight of component  
B, 0 to 50% by weight of component C and 0 to 40% by weight of  
component D.
- 5
14. A. display according to claim 8, which further comprises a thin  
film transistor or varistor.
- 10 15. A display according to claim 7, which further comprises a  
three-pole switching element.

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